

REMARKS/ARGUMENTS

Favorable consideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-51 are pending in the application, with Claims 1, 3, 5, 8, 24, 26, 29, 45, 47, and 49 amended by the present amendment.

In the outstanding Office Action, the specification/drawings were objected to; Claims 8, 24, 29 and 45 were objected to; Claims 1, 2, 5-8, 47 and 48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya (JP 08-030119) in view of Inoue (JP 2002-091252); Claims 5, 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view of Koizumi (U.S. Patent No. 4,348,098); Claims 15 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view of Iwata (JP 2002-023574); Claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya, in view of Inoue and Hujii (U.S. Patent No. 6,025,108); Claims 3, 4, 26-29 and 49-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view Inoue and Aoki (JP 2001-174934); Claims 26, 30 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view of Koizumi and Aoki; Claims 26 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view of Iwata and Aoki; Claim 46 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Tamiya in view Inoue and Hujii and Aoki; and Claims 12-23, 24, 33-44 and 45 were indicated as containing allowable subject matter. Applicants acknowledge with appreciation the indication of allowable subject matter.

Claims 8, 24, 29 and 45 are amended to overcome the outstanding objections. Independent Claims 1, 3, 5, 26, 47, and 49 are amended to more clearly describe and distinctly claim Applicants' invention. Support for this amendment is found in Applicants'

originally filed specification.¹ The specification and figures are amended to correct mis-numbered items and to comply with 37 C.F.R. § 1.83(a). No new matter is added.

Briefly recapitulating, amended Claim 1 is directed to an image transfer method that includes a) optically neutralizing a surface potential of an image bearing element that carries a toner image; b) controlling a surface potential of a transfer medium so that toner is not transferred from the image bearing element to the transfer medium at an upstream of a contact area between the image bearing element and the transfer medium, while controlling a surface potential of a transfer medium so that the toner is transferred from the image bearing element to the transfer medium at a toner nip portion; and c) transferring a plurality of toner images of different colors from the image bearing element repeatedly to the transfer medium to form a superposed toner image on the transfer medium. Independent Claims 3, 5, 26, 47, and 49 are directed to alternative embodiments of Applicants' invention, each reciting that the surface potential of the transfer medium is optically controlled. Applicants' claimed invention allows for improved toner use.²

Tamiya describes the use of charged contact rollers (53 and 54) to control the polarity of toner.³ Tamiya fails to disclose controlling a surface potential of a transfer medium so that toner is not transferred from the image bearing element to the transfer medium at an upstream of a contact area between the image bearing element and the transfer medium while controlling a surface potential of a transfer medium so that the toner is transferred from the image bearing element to the transfer medium at a toner nip portion as recited in Applicants' amended Claim 1. Applicants have considered the other cited references and submit these references do not cure the deficiencies of Tamiya.

¹ Specification, page 19, line 14 – page 20, line 11.

² Specification, page 15, line 1 – page 16, line 19; Figures 2-3.

³ Tamiya, abstract and Figure 7.

Inoue describes radiating light to erase the optical memory in a photosensitive drum. However, Inoue fails to disclose or suggest controlling a surface potential of a transfer medium of any kind, let alone Applicants' claimed "controlling a surface potential of a transfer medium so that toner is not transferred from the image bearing element to the transfer medium at an upstream of a contact area between the image bearing element and the transfer medium while controlling a surface potential of a transfer medium so that the toner is transferred from the image bearing element to the transfer medium at a toner nip portion."

Koizumi describes injecting a charge before transferring an image to a drum. However, Koizumi fails to disclose or suggest controlling a surface potential of a transfer medium of any kind, let alone Applicants' claimed "controlling a surface potential of a transfer medium so that toner is not transferred from the image bearing element to the transfer medium at an upstream of a contact area between the image bearing element and the transfer medium while controlling a surface potential of a transfer medium so that the toner is transferred from the image bearing element to the transfer medium at a toner nip portion."

Applicants have considered the remaining applied references and submit these references also fail to cure the deficiencies of Tamiya, Inoue and Koizumi. As none of the cited prior art, individually or in combination, disclose or suggest all the elements of independent Claim 1, Applicants submit the inventions defined by Claim 1, and all claims depending therefrom, are not rendered obvious by the asserted references for at least the reasons stated above.⁴ For similar reasons, Applicants submit that Claims 3, 5, 26, 47, and 49, and all claims depending therefrom, are not rendered obvious by the cited references.

⁴ MPEP § 2142 "...the prior art reference (or references when combined) must teach or suggest **all** the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)."

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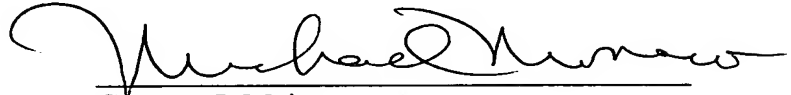
Accordingly, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

A handwritten signature in dark ink, appearing to read "Gregory J. Maier", is written over a horizontal line.

Gregory J. Maier
Attorney of Record
Registration No. 25,599
Michael Monaco
Registration No. 52,041

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IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 5, and 20, and 21 and adds one new Fig., 21B. These sheets, which include Figs. 5, 20, 21A, and 21B replace the original sheets including Figs. 5, 20, and 21.

Attachment: Replacement Sheets (3); New Sheets (1)